Ganga

GANGA HOSPITAL

Coimbatore, India.

Pushing the Boundaries of Care

Department of Plastic Surgery
Hand Surgery and Reconstructive Microsurgery
Maxillofacial Surgery & Burns Surgery

Activity Report 2006 & 2007

Founders

Dr JG Shanmuganathan and Mrs Kanakavalli Shanmuganathan

The one important lesson that we learnt from our founders
To believe that it is possible to do it.

Dr S Raja Sabapathy and Dr S Rajasekaran

The Ganga Team

The two years .....2006 and 2007

Time flies fast and it becomes obvious when you realize that it is time to produce the next biennial report of the Department! We found it more exciting to do it this time, since in the two years in review we crossed quite a few milestones.

We have moved to our new facility, added up speciality sub sections, talented young people have joined the team and we served more patients than ever before – these are just a few of them.

As always, patient care has been the prime focus of the unit, but we could also provide adequate resources and time for teaching and training and contributing to the growth of the speciality.

This biennial report has a new format, attempting to answer the frequently asked question of many people, 'What exactly do you do?' Though the things could surprise many, one thing you could be sure – we are passionate in everything that we do, continuously pushing ourselves to do a little more.

We thank our parents, the founders of the Hospital for showing us the path and the Lord Almighty for leading us through. The Orthopaedic Department led by my brother Dr Rajasekaran has always been supportive. Hope with your good wishes we are able to serve better in the coming years.

S. Raja Sabapathy

Dr S Raja Sabapathy
Director, Ganga Hospital
Head, Department of Plastic Surgery, Hand & Reconstructive Microsurgery, Maxillofacial Surgery and Burns

The cover picture

Cover depicts the picture of Mr. Sunil Kumar lighting a lamp for Lord Ganesha. The left hand which is holding the match box was totally amputated on 14th Oct 2007 in a work spot accident. The Plastic Surgery Department reattached the hand with the help of microsurgery in a 7 hour operation. He regained excellent function and went back to the same job in the aluminum fabrication company in 3 months.

Providing emergency microsurgery service 24 hours a day, throughout the year is a challenge to which the unit has lived up to since 1991, ***presently emerging as the largest emergency microsurgery care provider in the country.*** By a continuous process of team building and upgrading the infrastructure we are expanding the indications for replantation, there by ***pushing the boundaries of care***.

See Sunil's hand at work at www.gangahospital.com/activity0607/cover

Our mission is to provide the best possible Plastic Surgical and Microsurgical services to every injured person who reaches our hospital at all times. With this we formulated the Vision 2012 statement which we published in 2002. It is reproduced here.

"As a Citizen of India, armed with knowledge and technical expertise and above all a great sense of patriotism for our country,
I realize that Small Aim is a Crime"

Dr APJ Abdul Kalam
Former President of India

...and the Vision for 2012

(Statement first made in the 2002 activity report)

1. We wish to establish the role of Plastic Surgery and Microsurgery in acute trauma amongst the medical profession and increase the public awareness. A country of a billion people needs many dedicated centres where high quality care with Microsurgery facility is available. We would develop this as the best centre for Hand Surgery and Trauma Reconstructive Surgery which would serve as a prototype for the development of other centres in the country. It will develop with a high degree of social responsiveness so that every person who needs the exclusive services of the centre will have access to the facilities and expertise irrespective of their means.

2. The unit will serve to promote closer co-operation between Plastic Surgery, Orthopaedics and Anaesthesia in the management of major limb trauma. It is our intention that by 2012, every major trauma unit in the country will be supported by a high quality Plastic Surgical team, and 80% of them will have at least one member trained or influenced by Ganga Hospital.

3. We will become one of the preferred centres for training in the field on a global level, where trainees will come by choice. Putting Coimbatore and India as the destination for advanced training will be our goal. We realize that we should provide high quality care and a good academic environment with high volume of work to make it possible.

4. We will work to make the Hospital as one of the most valued and respected health care provider in the country. It will be driven by a team of people who share the same vision. The hospital will provide every team member the opportunity to reach their full potential.

With every passing year -
closer to the Goal

Patient Care

"The interest of the patient is the only interest that we have"

- William J Mayo

Will our son ever walk again ?

No parent ever wants to be in a situation where they need to ask this question. Unfortunately Mrs and Mr Saravanan, had to do that on the evening of 13th July 2007 when their 7 year old son Manikandan's foot was crushed when a lorry ran over his right leg while he was walking on the side of a road. The right foot was so badly crushed that the parents were so worried if it could be saved at all. They rushed him to Ganga Hospital.

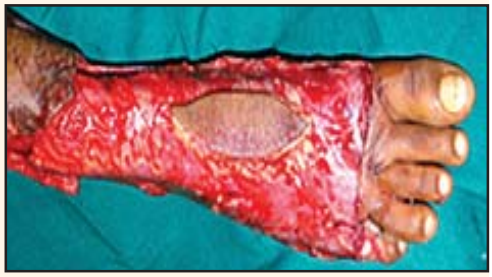
Ganga Hospital has the system wherein all major injuries are immediately seen by the senior decision making people on arrival of the patient. The child was resuscitated by the anaesthesia department and the Plastic Surgeons reassured the parents that every effort would be taken to salvage the foot. Manikandan was on the operation table barely an hour after arrival to the hospital. His normal schedule would have had him at home doing his school home work. Such major injuries are heavily contaminated and the first step taken by the surgeon is to remove all the dead and damaged tissue and the contaminants. This is a crucial step for success and technically it is called debridement. This done, the tendons which move the toes and the foot were reconstructed. All this will be successful if and only if the whole wound is covered with good tissue with blood supply. This is the challenging part of the reconstruction and requires microsurgical free tissue transfer. Plastic and Microsurgery department of Ganga Hospital has made a mark in this field. The procedure could take about 4 – 6 hours. It was thought too much for the child to do them all in one day. Manikandan was again on the operation table the next morning. A muscle from the back with its blood vessels was taken and joined to the blood vessels in the leg. The muscle became pink again and protected all our reconstructions. With each passing day Manikandan and his parents began feeling better. That 'goodness' feeling was so obvious when he greeted us with a note of thank you one morning. Four months from injury he is back to school, leaving the memories of the injury behind.

His parents have almost forgotten the question they asked on his arrival to the Hospital whether their son would ever walk again, because, Manikandan is now running.

See him run at www.gangahospital.com/activity0607/001

The mangled foot

After debridement and tendon reconstruction



After microsurgical muscle flap cover

The healed foot and a "Thank You" note to the Doctors

Will I ever be able to bend my elbow ?

Dr Manish had just qualified as a doctor from a Medical College in New Delhi and was looking for a bright future. Then tragedy struck. He fell down from a two wheeler and sustained brachial plexus injury to his right hand. His shoulder and elbow muscles were paralysed.

When he reached us, it was more than 5 years after the injury, and had undergone many surgeries. Still he could neither bend his elbow nor lift his wrist.The time elapsed ruled out many treatment options but had not reduced his desire to get better. We offered him the only possible solution of bringing in a muscle from the thigh (Gracilis) to act as the biceps muscle.

Dr Manish as he reached us, unable to bend the right elbow or lift the wrist

The thigh muscle had to be harvested with its blood vessels and nerve and connected to blood vessels and nerves in the neck. The new blood supply makes the muscle live and the nerve has to regenerate to make the muscle work and bend the elbow. In a 7 hour operation, (Free Functioning Muscle transfer) it was successfully executed.

The muscle harvested from the thigh which will become his biceps

It took 6 months for his new 'biceps' to flicker and in a year's time he could bend the elbow. Another operation (tendon transfer) was done to enable him to extend (lift upwards) the wrist. Manish said, 'It is really marvelous to be able to bend the elbow and the wrist again. I almost thought it might never happen'.

It is easy to take things for granted until one is deprived of it. At Ganga Hospital we are alive to the needs of such people and are proud to be one of the very few centres in the country offering wholesome service to Brachial Plexus injury patients. It is difficult to match the original, but almost everyone can be made a little better. As Sterling Bunnel, one of the founding fathers of Hand Surgery said, **'For someone who has nothing, a little is a lot'**.

Brachial plexus injuries are devastating injuries which occur to young people. The nerves which supply the upper limb are damaged near the spinal cord. The effect may range from total paralysis of all the muscles from shoulder to the hand or partial functioning of some of them.

Now he can bend the elbow and comfortably steady his wrist and carry weights

Every patient just has the question,
'Can anything be done to get more movement in my hand?'
and we strive hard to provide answers to that question.

See Dr Manish at www.gangahospital.com/activity0607/002

Can I face the world again?

For 40 year old Haraprasad Sahu, from Berhampur, Orissa the worries were two fold. One, he was worried about the real danger of losing his left thumb, having lost part of the right thumb and ring finger in the same accident. Apart from that he could neither feel nor move any of the other fingers in the left hand. The tendons (structures which move the fingers) and the nerves had been divided. Unable to move and unable to feel - to him the hand was almost non existent.

We saw him a few weeks after the accident. The left thumb tip was precariously viable but most of the tissues were dead. Salvaging the thumb was the priority. Painstakingly we removed all the dead tissues (they have to be removed entirely). That itself was a challenge because there was the real risk of losing the thumb in the process. That left him with just a stump of bone with some skin on the back and the base of the index finger was also bare. We shaped tissues from the groin area and saved the thumb. At Ganga Hospital we have refined techniques in the transfer of tissues from the groin even from obese people and those techniques came in handy. The thumb was saved.

He came back again after a few months and we grafted all the flexor tendons and the divided nerves to make the hand functional. To reconstruct tendons we took tissues from the thigh (fascia lata grafts). Mr Sahu cooperated well with our trained physiotherapists and in a few months he was almost normal again. He could feel and move the fingers.

Continue next page...

The way Mr Sahu arrived, the left thumb precariously viable, other fingers without sensation and movement with partial amputation of right thumb and ring finger.

What remained of the left thumb after removal of dead tissues

The soft tissue defect being reconstructed in stages with tissues from the groin region. The thumb has been saved but it has to be made to look good and functional.

He had one more wish. ***"Can I get a prosthesis for the short thumb and ring finger of the right hand?*** This was done at the Ganga Hospital Silicone Prosthetic centre where in association with Otto Bock silicone fingers are made.

They provide excellent colour match and are almost life like. After he got the prosthesis, for a few days Mr Sahu was in demand – doctors and therapists asking people to find out what is special in his right hand. Not surprisingly many stared at his right hand for some time and said, 'It looks OK. I don't know what the problem is'. Sahu's confidence in himself bounced back.

Few months later, on a review visit he said that he was driving a motor cycle in the village. When the doctors told him that it is safer for him to drive a car, he said, 'Sir, I have many cars but when I drove the motor cycle through the village, everyone was convinced that I was normal again'.

We say that we face the world with our faces, but many times people face the world with their hands too

See Mr. Sahu's reconstructed hands at
www.gangahospital.com/activity0607/003

All the tendons which move his fingers and the nerves which provide sensation to the finger tips were reconstructed by grafting.

His left hand a year after injury when he came for a followup visit. He has power, movement and sensation in the fingers and are aesthetically very acceptable.

Rehabilitation was complete with the provision of prosthesis to the right thumb and ring finger. The comprehensive care provided made him ready to ***'face the world again'***

'Uncle, my hands are so much better now. For the first time I walked a few steps myself'

Sure, you must be thinking that there must be something wrong in the printing of the sentence – we agree. It deserves some explanation as to how the hands getting better has made one walk a few steps.

14 years old Sakthisri is a bright and intelligent girl and full of life. She has been afflicted by cerebral palsy with severe spasm of all the four limbs. Surgery on the legs has just enabled to steady the legs. But she required the support of her hands to hold the crutches to take those few steps. The hands were severely spastic which prevented her from gripping objects. Tendon transfers were done to steady the wrist in good position and the spastic muscles were selectively weakened. Another surgery was done to correct the deformity in her fingers. All this done, and with the support of physiotherapy and a loving and supportive family, she was able to grip the crutches and take a few steps. Her joy knew no bounds. Now she thinks that her dream of becoming a professor will also be possible. This has given hope to her and fresh challenges to us to keep pace with her demands and aspirations.

Opportunity to make a difference in the lives of children like Sakthishri gives us tremendous joy and a sense of satisfaction. After all nothing could be more satisfying than helping a child's dream come true.

The right hand before operation

Made adequate to hold the crutches

See her take a few steps at
www.gangahospital.com/activity0607/004

Statistics of the clinical work done in 2006 & 2007

Methodology of Recording

Every new patient who undergoes a surgical procedure gets a serial number. Procedures in the Hand and Upper Limb are recorded separately and all others are recorded under General Plastic Surgery category. If one patient undergoes multiple procedures, even at intervals he or she is considered as one patient for statistical purposes. All operations done are recorded in a nominal register. If similar procedures are done, for example skin grafting at different sites it is considered as only one procedure. But if an individual has a flap cover and later tendon grafts it is considered as two procedures.

Description	2005	2006	2007
New Hand Surgery Patients	*1774*	*1940*	*2200*
New General Plastic Surgery Patients	*1269*	*1420*	*1687*
Total Surgeries	*4100*	*4636*	*5519*

Hand Surgery

	2006	2007
Finger Injuries		
Primary Skin Suturing	133	157
Nail Bed Repair	223	290
Nail Bed Graft	7	10
Straight Triangular Flaps	70	89
Oblique Triangular Flaps	77	75
Littler Island Flap	2	4
Cross Finger Flaps	126	127
Reverse Dermis Flap	2	1
First Dorsal Metacarpal Artery Flap	5	1
Transposition Flap	20	4
Full Thickness Skin Graft	10	6
Split Thickness Skin Graft	31	25
Shortening And Closure	262	353
Ray Amputation	10	9
Subungual Hematoma	5	9
Nail Cyst Excision	3	2
Palmar Grafting	2	2
Dorsal Dermodesis	8	9
Total	**996**	**1164**

Non Micro Surgical Flaps in Upper Limb		
Abdominal/Groin Flap	94	138
Transposition Flap	3	27
Posterior Interosseous Flap	10	7
Lateral arm flap	0	1
Becker Flap	1	1
Pedicled LD	3	2
Perforator Flap	0	1
Radial forearm Flap	1	1
Total	**112**	**178**

Replantations		
Arm	0	1
Forearm	3	5
Hand	0	6
Transmetacarpal	2	4
Thumb	12	11
Fingers	18	25
Ring avulsion	5	1
Scalp	0	1
Foot Replant	0	1
Heterotophic Replant	0	1
Total	**40**	**56**

Critical Revascularization		
Digital Artery Repair	41	34
Palmar Arch Repair	5	1
Ulnar Artery Repair	9	24
Radial Artery Repair	8	8
Brachial Artery Repair	8	10
Axillary Artery Repair	0	3
Femoral Artery Repair	0	2
Popliteal Artery Repair	1	10
Posterior Tibial Artery Repair	1	3
Anterior Tibial Artery Repair	0	1
Vein Grafts	7	12
Venous Augumentation	0	2
Total	**80**	**110**

Major Hand Reconstruction		
Major Hand Debridement	59	66
Skin Grafting	75	201
Volkmann's Ischemic Contracture	12	6
Degloving Injuries Forearm	2	3
Degloving Injuries Fingers	3	6
Secondary Flap Procedures		
Syndactily Release (Groin Flap)	16	12
Debulking	22	20
Web Release	4	5
Side Swipe Injuries	0	2
Primary Skin Suturing	21	28
One Bone Forearm	0	1
Post Traumatic Contracture Release	30	32
Osteoplastic Thumb Reconstruction	0	4
Compartment Syndrome Reconstruction	3	1
Fasciotomy Hand - Compartment Syndrome	0	2
Radio-ulnar Synostosis Release	0	1
Total	**247**	**390**

Surgery On Extensor Tendons		
Mallet Finger Correction	14	35
Central Slip Repair	6	9
Tendon Repair Over Phalanges	57	49
Tendon Repair Over Dorsum of Hand	19	24
Tendon Repair Over Forearm	13	20
EPL Repair	6	8
Tendon Graft For Extensor	2	4
Extensor Tenolysis	3	15
Centralization of Extensor Tendon	0	1
Boutonniere Correction	2	6
Swan Neck Deformity Correction	4	6
ECRB Plication	0	1
Total	**126**	**178**

Surgery On Flexor Tendons		
Zone I Tendon Repair	6	18
Zone II Tendon Repair	14	13
Zone III Tendon Repair	24	7
Zone IV Tendon Repair	1	1
Zone V Tendon Repair	27	25
FPL Tendon Repair	4	7
Flexor Tendon Graft	7	6
Flexor Tenolysis	6	4
Flexor Reconstruction	3	1
Total	**92**	**82**

Tendon Transfers		
Opponensplasty	2	5
Claw Correction	6	2
Radial Nerve Palsy Correction	5	12
Pedicled LD Transfer for Elbow Flexion	0	4
Pec Major for Elbow Flexion	1	0
ECRL to FDP	4	0
EI to EPL	1	1
Brachioradialis to FPL	3	0
Total	**22**	**24**

Surgery On Bones		
Moulding of Fractures	53	35
Zimmer Splint Traction	21	10
Open Reduction &Internal Fixation of Fractures		
Middle Phalanx	63	59
Proximal Phalanx	97	98
Metacarpals	83	53
Bennett's Fracture	14	15
Scaphoid	1	2
Capitate	0	1
Closed Pinning	21	48
Dislocations		
Lunate Dislocation	2	0
Carpo Metacarpal Joint	12	12
Metacarpophalangeal Joints	9	4
Inter Phalangeal Joints	3	16
Carpal Injuries	2	2
Proximal Row Carpectomy	2	8
Collateral Ligament Injuries	8	6
Arthrodesis		
Wrist	1	5
CMC Joint	4	5
MCP Joint	6	5
PIP Joint	19	22
DIP Joint	8	27
MCP Joint Capsulotomy	16	6

Trans-Scaphoid Perilunate Dislocation	1	2
External Fixator Application	0	1
Ulnar Collateral Ligament Repair - MCPJ Thumb	1	3
Arthrolysis (Collateral Ligament Release)	0	1
Corrective Osteotomy Finger	12	4
Bone Grafts to Phalanges & Metacarpal	17	15
Total	**474**	**467**
Surgery On The Nerves		
Digital Nerve Repair	31	41
Median Nerve Repair	7	21
Ulnar Nerve Repair	7	20
Radial Nerve Repair	3	2
Facial Nerve Repair	1	1
Femoral Nerve Repair	0	1
Sciatic Nerve Repair	2	1
Nerve Grafting		
Digital Nerve	8	2
Ulnar Nerve	3	3
Posterior Tibial Nerve	1	1
Common Peroneal Nerve	0	2
Anterior Transposition of Ulnar Nerve	2	5
Neuroma Excision	2	4
VIC Neurolysis	5	11
Neurolysis Posterior Tibial Nerve	0	1
Total	**72**	**116**
Brachial Plexus Surgery		
Brachial Plexus Neurolysis	1	4
C5 Direct Repair - Stab Injury	0	1
C5 with Medial Cord	0	1
Oberlin's Transfer	7	17
Spinal Accessory to Musculocutaneous	13	12
Spinal Accessory to Supra Scapular Nerve	6	15
Long Head of Triceps to Axillary	1	3
Long Thoracic Nerve to Supra Scapular	0	1
Phrenic to Supra Scapular Nerve	1	0
C6 to Supra Scapular Nerve	0	1
OBPI Neurotization	1	0
Free Functioning Gracilis Transfer	7	0
Trapezius Transfer	4	2
Steindler's Operation	0	1
David Chuang's Transfer	6	0
Triceps to Biceps	1	0
Mod Quad Release	0	35
Triangular Tilt	0	5
Derotation Oesteotomy	0	3
Shoulder Arthrodesis	1	0
Botox Injections	0	8
Total	**49**	**109**
Compression Neuropathies		
Carpal Tunnel Release	27	51
Guyun's Canal Release	7	10
Cubital Tunnel Release	0	1
Thoracic Outlet Decompression	0	2
Total	**34**	**64**
Congenital Hand Problems		
Excision of Polydactyly	2	3
Syndactyly Separation	12	6
Congenital Trigger Thumb, Finger Release	9	14
Constriction Ring Syndrome	0	1
Thumb Duplication	3	1
Radial Club Hand - Radialisation	3	0
Hypoplastic Thumb - Lig Recon. & Opponensplasty	2	2
Pollicisation	2	5
Cleft Hand Correction	3	1
Symbrachydactyly (Including free toe phalanx transfer)	1	8
Macrodactyly	2	3
Clasp Thumb Deformity	1	0
Wind Blown Hand	1	0
Total	**41**	**44**
Rheumatoid Hand		
Dorsal Synovectomy	2	7
Centralisation of Extensor Tendon	1	0
Flexor Synovectomy	3	16
Ruptured Flexors	2	0
Intrinsic Release	1	0
Adult Trigger Finger	12	21
Adult Trigger Thumb	15	12
Dequervain's Release	6	6
Calcific Tendonitis	0	1
Darrach's Procedure	0	1
Total	**42**	**64**
Spastic Hand		
Flexor Release / Fractional Lengthening	4	5
FCU to ECRB Transfer	7	4
FCU to EDC Transfer	0	3
Total	**11**	**12**

Burns (Early Surgery)		
Hand Burns	7	9
Fingers	5	1
Electric Burns	2	5
Chemical Burns	1	2
Face & Chest	2	2
Scalds	2	2
Tangential Excision	5	14
Total	**23**	**35**

Post Burn Contracture Release		
Z Plasty	3	1
Axilla	3	3
Hand, Elbow, Wrist	15	6
Finger	13	5
Web Space Release	4	16
Syndactyly Release	0	3
Thumb	0	1
Lower limb	12	6
Total	**47**	**44**

Tumors		
Ganglion	12	16
Soft Tissue	6	3
Enchondroma	2	2
Glomus Tumor	4	7
Giant Cell Tumour of Tendon Sheath	4	2
Giant Cell Tumor (PPx)	0	1
AV Malformation	4	1
Haemangioma	2	0
Fibromatosis	1	2
Pseudoaneurysm	0	3
Aneurysmal Bone Cyst Hand	0	1
Total	**35**	**38**

Amputations		
Below Elbow	6	14
Mid Arm	1	12
Total	**7**	**26**

Infections		
Paronychia	12	3
Hand	4	2
Finger	7	1
Osteomyelitis	7	3
Viral Wart	6	1
Papilloma	0	2
Total	**36**	**12**

Miscellaneous		
Dupuytren's contracture	0	3
Foreign Body Upper Limb	19	12
Biopsy	4	8
Incision & Drainage	3	10
Scar Excision Upper Limb	0	2
Scar Revision	0	2
Total	**26**	**37**

NON HAND PLASTIC SURGERY PROCEDURES

Head and Neck		
Face, Lip and Scalp Lacerations	144	292
SSG Face, Scalp	10	14
Facial Scar Revision	11	9
Tagliacozzi Flap	0	1
Commisuroplasty	0	1
Surgery for Facial Nerve Palsy	3	0
Hairy Naevus - Face Excision	4	2
Parotidectomy	1	3
Parotid Duct Repair	1	1
Sub Mandibular Gland Excision	1	0
Sebaceous Cyst / Lipoma	9	11
Dermoid Cyst	1	0
Tongue Tie Release	3	2
Tracheostomy	8	19
Earlobe Keloid / Repair	14	5
Haemangioma	1	2
Torn Ear Lobe Repair	0	2
Tooth Extractions	0	11
Scalp Biopsy	0	1
Total	**211**	**376**

Faciomaxillary Surgery		
Panfacial Fracture-ORIF	1	11
Naso Maxillary Zygomatic Complex Fracture	0	2
Nasal Bone Fracture Elevation	22	16
Zygoma Fracture Elevation / ORIF	35	42
Mandible Fracture ORIF / IMF	30	60
Dentoalveolar Fracture Wiring	0	13
Frontal Bone Elevation	6	2
Sagittal Split Osteotomy	1	0
Lefort Osteotomy	1	0
Maxilla Fracture	10	18
Orbital Blow Out Fracture	1	2
Submandibular Calculus Removal	0	1
Bony Exostosis Mandible	0	1
Septoplasty	1	0
Mandible Plate Removal	0	1
Eviscerations of Eye	1	0
Total	**109**	**169**

Cleft Lip and Palate		
Lip Repair	1	9
Abbe Flap	0	1
Palate Repair	1	5
Secondary Cleft Lip/ Nose Deformity	1	6
Palatal Fistula Closure	0	1
Total	**3**	**22**

Aesthetic Surgery		
Rhinoplasty	4	1
Gynacomastia	0	3
Reduction Mammoplasty	1	0
Liposuction / Abdominoplasty	1	4
Incisional Hernia/Abdominoplasty	3	4
Hair Transplant	2	1
Rhinophyma	1	2
Fat Injection	0	3
Eyelid Reconstruction	0	1
Romberg's Suspension of Flap	0	1
Cheek Adipo Facial Flap	1	0
Total	**13**	**20**

Lower Limb Trauma		
Grade III B Fractures	123	145
Grade III C Fractures	5	12
Major Degloving Injuries Lower Limbs	2	8
Major Debridement	23	28
Crush Injury Foot with Skin Loss	10	44
SSG Lower Limb	250	385
Emergency Fasciotomy	3	5
Laceration / Abrasion	55	117
Heel Pad Avulsion	10	17
Foot Fracture	8	9
Toe injuries	102	124
Total	**571**	**894**

Lower Limb Flaps		
Sural Artery Flap	14	5
Fasciocutaneous Flap	73	136
Gastrocnemius	24	21
Soleus	1	1
Cross Leg Flap	12	9
Cross Thigh Flap	1	0
Adipo Facial Flap	2	0
Lateral Calcaneal Artery Flap	5	0
Extensor Digitorum Brevis	3	1
Debulking of Flap	0	1
Debulking LD Flap	0	1
VAC Leg	6	20
Total	**141**	**202**

Micro Surgical Free Flaps		
Latissimus Dorsi	28	59
Gracilis	44	47
Free Fibula	4	2
Lateral Arm	1	0
Anterolateral Thigh Flap	1	0
Toe to Thumb	0	4
Fasciocutaneous free Flap	0	1
Total	**78**	**113**

Pressure Sores		
Sacral	14	11
Trochanter	4	1
Ischial	1	2
Heel	2	5
Ankle	0	1
Foot (Hansen's - Fritschi's Procedure)	2	2
Total	**23**	**22**

Congenital- Lower Limb		
Macrodactyly	0	1
Toe Duplication	0	1
Total	**0**	**2**

Diabetes - Complications		
Diabetic Foot / Ulcers	20	29
Total	**20**	**29**

Amputations		
Above Knee	19	27
Through Knee	0	1
Below Knee	35	53
Forefoot	5	1
Total	**40**	**82**

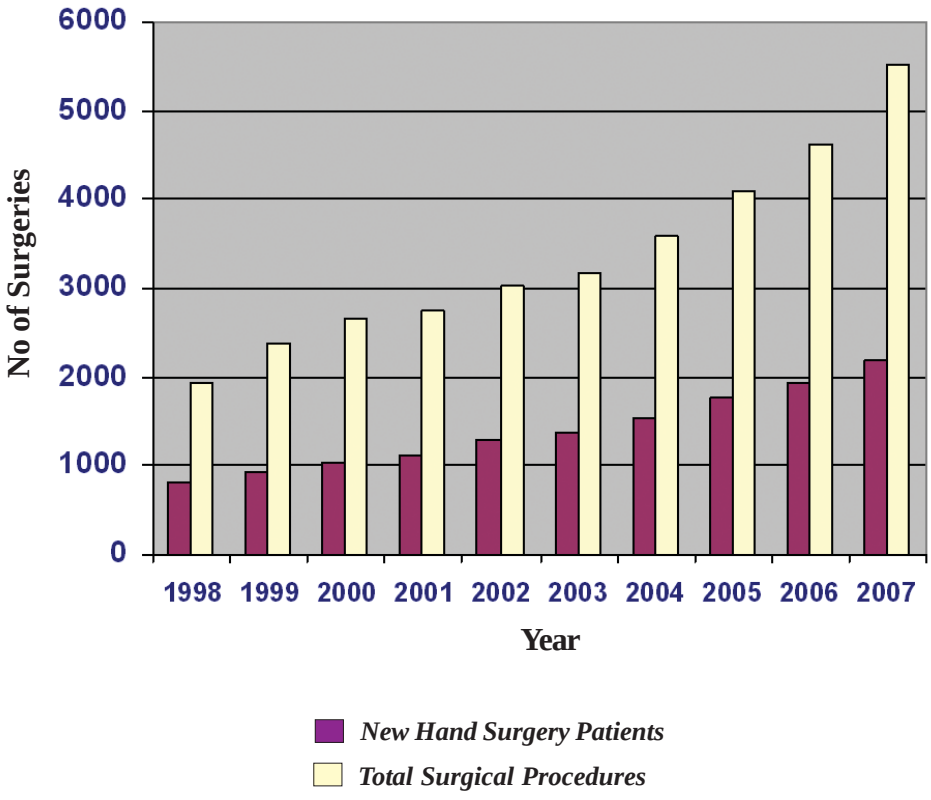
Soft Tissue Tumors		
Lipoma	0	4
Lymphangioma Excision	0	1
Total	**0**	**5**

Others - Lower Limb		
Hallux Valgus Correction	1	1
Haemangioma Foot	0	3
Tarsal Tunnel Release	0	11
Foreign Body Leg	1	9
Tibialis Posterior Tendon Transfer for Foot Drop	3	2
Tendoachilles Repair	13	6
Tendoachilles Lengthening	1	1
Extensor Tendon Repair - Foot	0	9
Corn Foot	4	4
V-Y Flap Heel	0	1

V-Y Flap Toe	0	4
Corrective Osteotomy Toe	0	1
Varicose Veins/Ulcer	8	6
Incision Drainage Abscess Lower Limb	12	30
Toe Burns	0	1
Ingrowing Toe Nail	9	21
Total	**52**	**110**

Miscellaneous		
Lower Limb Burns	3	0
Seroma	0	5
Breast Fibroadenoma	1	1
Muscle / Node Biopsy	0	5
Bursa Excision	5	4
Pilonidal Sinus Excision	3	0

Appendicectomy	0	2
Laparotomy	14	5
Lymphedema Debulking	0	2
Pyogenic Granuloma	0	1
ICD Insertion	0	4
Umbilical Hernia	0	2
Hernia	4	3
Tubal Recanalization	0	1
Sebaceous Cyst	0	7
Sternal Keloid	0	1
Penile reconstruction	0	1
Hypospadias	1	0
Cirumcision	5	1
Implant Removal	0	11
Hematoma Drainage	0	7
Total	**38**	**65**



Department of Anaesthesia

The volume of work of the Plastic Surgery Department is possible due to the round the clock availability of a skilled anaesthetic team headed by Dr Ravindra Bhat. Dr Boopathy joined the team in 2006.

Dr V Ravindra Bhat, Dr V Boopathi , Dr G Venkateswaran

Statistics (2006 & 2007)

Brachial Plexus Block	**-**	**4946**
Spinal Anaesthesia	**-**	**2920**
Combined Spinal Epidural	**-**	**300**
General Anaesthesia	**-**	**1158**

Popularisation of the Concept of the 'On arrival block'

The department conceived the concept of the 'On arrival block', wherein major injuries to the limbs are given a regional block as soon as they arrive at the Hospital. It is given in the ante room of the operating theatre after preliminary examination excludes injury to the other systems. Removal of dressings, clinical examination and radiology are done after the block in a pain free state. The immediate members of the family are shown the wound and the options of treatment are discussed. Immediate pain relief provides confidence to the patient and allows better clinical and radiological examination. Discussion of the injury and the treatment with the patient and the family increases patient compliance for follow up and physiotherapy.

Resuscitation of Polytrauma Patients

They form the frontline members for resuscitation of polytrauma patients. This has enabled many patients to be taken for emergency surgery early. The window period between arrival of the patient at the hospital to the start of definitive treatment has been kept to a bare minimum.

Academic Activities

Dr V Ravindra Bhat was the Chairman of the Scientific Committee of the Annual Meeting of the International Trauma Anaesthesia and Critical Care Society (Indian Section)

Presentations

1. June 2006. Indian Society for Anaesthesia , Tamil Nadu State Chapter, Thanjavur.
   Dr V Ravindra Bhat - Anaesthesia for Free Flaps

2. 7th - 9th Sept 2007, 4th Congress of the International Trauma Anaesthesia and Critical Care Society (Indian Section) ITACCS, Coimbatore.
   Dr V Ravindra Bhat - Fluid Resuscitation in Trauma

3. Oct 2007. Symposia for Post Graduates of Southern States, GKNM Hospital.
   Dr V Ravindra Bhat - Regional Anaesthesia

Visitors

2006

Dr Ananth J	Assistant Professor Anaesthesia, Kasturba Medical College, Manipal	23.10.06	28.10.06
Dr Punitha C	DNB Registrar, Dept of Anaesthesia, GKNM Hospital, Coimbatore	16.01.06	31.01.06
Dr Geetha S	DNB Registrar, Dept of Anaesthesia, GKNM Hospital, Coimbatore	16.01.06	31.01.06
Dr Sheeba Nambiar	DNB Registrar Dept of Anaesthesia, GKNM Hospital,Coimbatore	6.01.06	31.01.06
Dr Saravana Kumar S	Consultant Anaesthesiologist, Coimbatore	23.10.06	28.10.06

2007

Dr Jyoti Khanna	Anaesthesiologist, Dr Ruban Memorial Hospital,Patna	10.09.07	15.09.07

Ganga Hospital - AESCULAP Academy Advanced Course in Regional Anesthesia and Pain Management

Ganga hospital along with B.Braun AESCULAP Academy launched the advanced course in Regional Anesthesia and Pain Management in October 2005. So far 39 anesthesiologists from India, Srilanka and Nigeria have undergone this course. The objective of the course is to train anesthesiologists in various types of peripheral nerve blocks and plexus blocks including placement of continuous indwelling catheters with the help of peripheral nerve stimulator. The duration of the course is one week.

B. Braun Fellows

Dr. L. Vinutha, Hosur
Dr. B. Vasanthkumar, Trichy
Dr. P. Arthy, Coimbatore
Dr. Premanand, Chidambaram
Dr. Khatri Bhimesen, Mumbai
Dr. Bhamati Aohye, Pune
Dr. Ravi Narayanan, Bangalore
Dr. Archana Deka, Tezpur, Assam
Dr. Vemulapalli Raja Gopala Rao, Vijayawada
Dr. Dhina Dhedhia, Mumbai
Dr. Aparajitha Bhuyan, New Delhi
Dr. Raajis Kanna, Tuticorin
Dr. Reshmy Jayaraman, Mysore
Dr. C. Ravi Sankar, Madurai
Dr. Piyush N Mody, Mumbai
Dr. Alia Rafique, Mangalore
Dr. Virupakshappa, Raichur
Dr. Prakash Deshmukh, Mumbai
Dr. Shyam Patil, Nasik
Dr. K. Mendis, Colombo, **Sri Lanka**
Dr. Sujatha Santosh, Chidambaram
Dr. Priyesh, Lucknow
Dr. Sameer Kapoor, Jalandar
Dr. Sandya Prakash Bhuva, Mumbai
Dr. Venkat Raju, Bangalore
Dr. Jayanti A Bhate, Mumbai
Dr. Mrs. Oluwabummi, **Nigeria**
Surg. Cor. Arindam Dutta, Mumbai
Dr. Sandhya R Bhat, Mumbai
Dr. Sonali Deoskar, Mumbai
Dr. Meera Sundaram, Mumbai
Dr. V. Satheesh Kumar, Coimbatore
Dr. Ajay Pillai, Trivandrum
Dr. Vinod Sonawane, Mumbai
Dr. Viraj Namshikar, Nagerkoil
Dr. Dr. Narendra Charma, Mumbai
Dr. Rajesh Navale, Sangli
Dr. Jose Joseph, Kottayam
Dr. H. Perera, Colombo, **Sri Lanka**

Hand Therapy and Physiotherapy Department

We are fortunate to have a dedicated Hand Therapy department. It has in house splint making facilities. The unit is popular with trainees from many physiotherapy colleges. They come as observers during their student days or as interns after the course.

The Department

Mr Balaji, Senior Hand Therapist participated in the 7th Triennial Congress of International Federation of Societies for Hand Therapist at Sydney and presented the following talks.

- ECRL Tendon transfer for Restoration of finger flexion in patients with Flexor Muscle Loss after Direct Trauma
- Functional Out-Come of Major Upper Limb Replantation

View of the New Facility

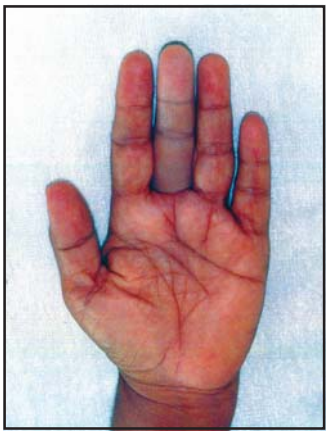
Statistics - Trainees in 2006 & 07

	2006	2007
Students-Clinical Posting	**12**	**28**
Internship	**75**	**105**

Ganga Hospital Silicone Prosthetics Centre

Otto Bock
QUALITY FOR LIFE

The Ganga Hospital Silicone Prosthetics Centre has become a regional training centre for Otto Bock centres in South East Asia. A course was held in March 2007 where 6 candidates from South Korea, Thailand and India attended.



Middle finger amputation fitted with prosthesis

Statistics

Year	Finger Prosthesis	Hand Prosthesis	Foot Prosthesis	Total
2006	29	06	08	43
2007	56	10	10	76

New Developments

'Compromise in organization is tantamount to making compromises in the standards of treatment'

- Sir Benjamin Rank
A Pioneer in Hand Surgery